

MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF SUBSTANCE/PREPARATION AND COMPANY

Product Name Epatam Solder Paste

Company Plimto Limited. Industrial Estate, Thruxton Airfield, Andover, Hampshire SP11 8PW

Telephone/Fax Tel: 01264 773173 Fax: 01264 772936

2. COMPOSITION/INFORMATION ON INGREDIENTS

Composition Powered alloy of tin and lead, suspended in an emulsified solution containing zinc chloride.

Component	CAS No	Symbol	Risk Phase	%W/W
Tin Metal	7440-31-5	N/A	N/A	32 ± 1
Lead Metal	7439-92-1	T	20/22-33-61	48 ± 1
Zinc Chloride	7646-85-7	C,* N	34, *50/53	20 ± 1

Risk Phases

R20/22 Harmful by inhalation and if swallowed

R33 Danger of cumulative effects

R34 Causes burns

50/53 Very toxic to aquatic organisms May cause long term adverse effects in aquatic environment

3. HAZARDS IDENTIFICATION

Human Health Hazards When using do not eat, drink or smoke. Inhalation of lead fume, this however only becomes significant at temperatures above 500°C. Normal soldering operations are carried out below this temperature. Corrosive can cause skin burns and eye injury. When heated to decomposition emits toxic corrosive fumes (hydrochloric acid).

Safety Hazards moist Molten solder should not be brought into contact with wet or materials.

Environmental Hazards Very Toxic to aquatic organisms. May cause long term adverse effects in aquatic environment also See Control of Lead at Work Regulations.

4. FIRST AID MEASURES

Inhalation	(Fumes) remove patient to fresh air and seek medical attention.
Skin	Wash skin thoroughly with warm water, apply sodium bicarbonate solution to allay irritation. Remove contaminated clothing.
Eyes medical	Wash out at once with copious amounts of water and seek attention.
Burns medical	Cool burn site immediately with clean cold water and seek attention.

5. FIRE FIGHTING MEASURES

Extinguisher Media	Carbon Dioxide, foam or dry chemical powder sand or earth.
Special fire fighting procedures	Avoid water which will cause molten solder to explode
Protective Equipment	Full protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Use full protective clothing when moping up
Environmental precautions	Prevent contamination of soil, drains and surface waters.
Methods of cleaning up Shovel	Use non combustible absorbent material to soak up spills. to container.

7. HANDLING AND STORAGE

Handling	Wear gloves when handling
Storage	Keep container closed and dry.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Maximum Exposure Limits	(MEL,s)	
Substance	Long Term Exposure Limits (8 hour TWA)	Short Term Exposure Limit (15min)
Zinc Chloride Fume	1.00mg/m ³	2.00mg/m ³
Lead	0.15mg/m ³	
Tin	2.00mg/m ³	

Personal protection equipment

Clothing Washable or disposable overalls, gloves

Eyes Safety goggles or eye shield

9. PHYSICAL AND CHEMICAL PROPERTIES

Explosion Limit	No explosion hazard
Form	Paste
Colour	Grey
Boiling point at oC	N/A
Solubility in water	Partial
Flash point at oC	N/A

10. STABILITY AND REACTIVITY

Stability	Stable
Hazardous decomposition	Avoid fumes from overheating normally above 500oC

11. TOXICOLOGICAL INFORMATION

Acute Toxicity - Inhalation For Zinc Chloride fume : 1mg/m³

Recommended exposure limit Lead 0.15 mg/m³ of fume when overheated.

Human Effects Inhalation and ingestion of dust and fumes can cause severe damage to kidneys and liver.

12. ECOLOGICAL INFORMATION

Persistence and degradability Not Biogradable – highly water contaminating
Ecotoxicity effects Known to be toxic to aquatic organisms – no data available

13. DISPOSAL CONSIDERATIONS

Waste Disposal Return to supplier

14. TRANSPORT INFORMATION

UN Number 1840
IMDG Class 8 - Corrosive. Marine pollutant
IATA-DGR Class 8- C
UN Packing Group III

15. REGULATORY INFORMATION

Classification C-Corrosive, * N – Dangerous to yhe enviroment

16. OTHER INFORMATION

Further information on Control of Lead at Work Regulations 1998 and the Approved Code of Practice, which can be obtained from HSSO.

17. REVISION DATES

Date of Issue :	July 2000
Revised Date:	September 2002
Replacing	All previous Material Safety Data Sheets

The information and recommendations on this sheet relate to the specific materials designated and may not be valid for such material used in combination with any other materials or in any process. The information is given in good faith and the best of Plimto Limited knowledge, the information is believed accurate and reliable at the time of preparation.

Nothing hereon is to be construed as a guarantee express or implied, in all cases it is the responsibility of the user to determine the applicability of this information or the suitability of the products for his own particular purposes.

MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF SUBSTANCE/PREPARATION AND COMPANY

Product Name Soft Solder Containing Tin/Lead Antimonial

Company Plimto Limited. Industrial Estate, Thruxton Airfield,
Andover, Hampshire SP11 8PW

Telephone/Fax Tel: 01264 773173 Fax: 01264 772936

2. COMPOSITION/INFORMATION ON INGREDIENTS

Composition Alloys of Tin, Lead and Antimony

Component	CAS No	Symbol	Risk Phase
Tin Metal	7440-31-5	N/A	N/A
Lead Metal	7439-92-1	T	20/22-33-61
Antimony Metal	7440-36-0	T	20/22-33-61

Risk Phases

20/22 Harmful By inhalation and if swallowed

R33 Danger of cumulative effects

R61 May cause harm to unborn child

3. HAZARDS IDENTIFICATION

Inhalation and ingestion of dust and fumes can cause severe damage to heart, lungs, kidneys and liver.

4. FIRST AID MEASURES

First aid measures

Inhalation (Fumes) remove patient to fresh air and seek medical attention.

Skin Wash skin thoroughly with warm water and soap.

Eyes	(Molten metal) see burns below.
Burns medical	Cool burn site immediately with clean cold water and seek attention.

5. FIRE FIGHTING MEASURES

Extinguisher Media	Dry chemical powder.
Special fire fighting explode.	Avoid water which will cause molten solder procedures to explode.
Protective Equipment	Full protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	N/A
Environmental precautions	N/A

7. HANDLING AND STORAGE

Handling	Wear gloves when handling
Storage	Precautions should be taken not to generate dust

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Maximum Exposure Limits	(MEL,s)	
Substance	Long Term Exposure Limits (8 hour TWA)	Short Term Exposure Limits (15 min)
Tin Metal	2.00mg//m ³	N/A

Lead Metal	0. 015mg//m ³	N/A
Antimony Metal	0.5mg//m ³	N/A

Occupational exposure limits Only apply when solder is overheated normally over 500C

Personal protection equipment

Clothing Washable or disposable overalls, gloves

Eyes Safety goggles or eye sheild

9. PHYSICAL AND CHEMICAL PROPERTIES

Explosion Limit	No explosion hazard
Form	Sticks, bars and ingots.
Colour	Silvery.
Melting Point	150C to 310C Depending on alloy
Solubility in water	Insoluble in water
Flamability	Non-flammable

10. STABILITY AND REACTIVITY

Stability	Stable
Hazardous decomposition	Avoid fumes from overheating normally above 500C

11. TOXICOLOGICAL INFORMATION

Acute Toxicity - Inhalation	Recommended exposure limit of fume when overheated	
	Lead	0.15mg/m ³

Tin	2.00mg/m ³
Antimony	0.5mg/m ³

Human Effects	Lead can cause weakness, vomiting, loss of appetite, convulsions and stupor.
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Chronic Toxicity	Lead can cause weakness, insomnia, hypertension, headaches and pains in the joints. Chronic exposure to lead may result in damage to blood – forming, nervous, urinary and reproductive systems.
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12. ECOLOGICAL INFORMATION

Prevent contamination of soil.
Tin, Antimony and Lead are non degradable and will persist in the environment, and are insoluble in water and not attacked by most inorganic acids and bases.

13. DISPOSAL CONSIDERATIONS

Waste Disposal local and licensed site	Store in closed containers and dispose of in accordance with national legislation. Ideally this product should be sent to a recycling company and should on no account be sent to a landfill site
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14. TRANSPORT INFORMATION

Not classed as Hazardous for transportation

15. REGULATORY INFORMATION

Classification

X - Harmful

16. OTHER INFORMATION

Further information on Control of Lead at Work Regulations 1998 and the Approved Code of Practice and Toxicology of Antimony which can be obtained from HSSO.

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